

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An anti-microbial composition comprising (i) a first compound having a high surface tension of from 20 to 35 mN/m, (ii) a second compound having a low surface tension of from 8 to 14 mN/m, wherein the second compound comprises at least one compound selected from the group consisting of silanes, soya lecithins, siloxanes, and mixtures thereof, (iii) a first anti-microbial agent and (iv) a polar solvent, wherein the anti-microbial composition acts substantially to prevent the formation of microbial colonies on or at a surface of the composition.

2. – 45. (canceled).

46. (original) An anti-microbial composition according to Claim 1, wherein the surface tension of the second compound is 10 mN/m.

47. (original) An anti-microbial composition according to Claim 1, wherein the first compound is hydrophobic.

48. (original) An anti-microbial composition according to Claim 1, wherein the second compound is hydrophilic.

49. (original) An anti-microbial composition according to Claim 1, wherein the first compound is hydrophobic and the second compound is hydrophobic.

50. (original) An anti-microbial composition according to Claim 49, wherein the first compound is a second anti-microbial agent.

51. (original) An anti-microbial composition according to Claim 50, wherein the second anti-microbial agent is a quaternary ammonium compound.

52. (original) An anti-microbial composition according to Claim 50, wherein the first and/or second anti-microbial agent is of a polar nature.

53. (original) An anti-microbial composition according to Claim 1, comprising at least one anti-microbial agent selected from bacteriocidal, fungicidal, algicidal, yeasticidal and moldicidal agents.

54. (original) An anti-microbial composition according to Claim 1, wherein the first compound is a second anti-microbial agent.

55. (canceled).

56. (original) An anti-microbial composition according to Claim 54, wherein the first and/or second anti-microbial agent is of a polar nature.

57. (canceled).

58. (original) An anti-microbial composition according to Claim 54, wherein the quaternary ammonium compound has the general formula $R^1R^2R^3R^4N^+X^-$, in which one or two of the R groups are alkyl, optionally substituted by aryl or optionally interrupted by aryl or a heteroatom, and the other R groups are the same or different and are C₁ to C₄ alkyl groups.

59. (currently amended) An anti-microbial composition according to Claim 5[[7]]8, wherein the quaternary ammonium compound is selected from a benzalkonium halide, an aryl ring substituted benzalkonium halide and a dialkyldimethyl ammonium compound wherein the two non-methyl alkyl groups are selected from C₈ to C₁₂ alkyl.

60. (canceled).

61. (currently amended) An anti-microbial composition according to Claim 5[[7]]8, wherein the quaternary ammonium compound is selected from ~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethylchloride, ~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethyl-N-tetradecylchloride and benzyl-C₁₂-C₁₆-alkyldimethyl-ammoniumchloride.

62. (original) An anti-microbial composition according to Claim 1, comprising at least one first anti-microbial agent selected from an amphoteric compound, an iodophore, a phenolic compound, a quaternary ammonium compound, a hypochlorite and a nitrogen based heterocyclic compound.

63. – 69. (canceled).

70. (original) An anti-microbial composition according to Claim 62, wherein the phenolic compound is selected from a methyl, ethyl, butyl, halo and aryl substituted phenol.

71. (original) An anti-microbial composition according to Claim 62, wherein the phenolic compound is selected from 2-phenylphenol, 2-benzyl-4-chlorophenol, 2-cyclopentanol-4-chlorophenol, 4-t-amylphenol, 4-t-butylphenol, 4-chloro-2-pentylphenol, 6-chloro-2-pentylphenol, p-chlorometa-xyleneol, 2,4,4-trichloro-2-hydroxydiphenol, thymol, 2-i-propyl-3-methylphenol, chlorothymol, 3-methyl-4-chlorophenol, 2,6-dichloro-4-n-alkyl phenols, 2,4-dichloro-meta-xyleneol, 2,4,6-trichlorophenol and 2-benzyl-4-chlorophenol.

72. – 77. (canceled).

78. (currently amended) A composition according to Claim 1, wherein the anti-microbial agent is selected from ~~benzenethanaminium~~

~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethylchloride,
~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethyl-N-tetradecylchloride, benzyl-C₁₂-C₁₆-alkyldimethyl-ammoniumchloride, 2-phenyl phenol, 2-octyl-2H-isothiazol-3-one, 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one.

79. (canceled).

80. (canceled).

81. (original) An anti-microbial composition according to Claim 1, wherein the second compound is polydimethylhydroxysiloxane.

82. (original) An anti-microbial composition according to Claim 1, comprising from 1 to 4% by volume of the second compound.

83. (original) An anti-microbial composition according to Claim 1, wherein the polar solvent is selected from water, an alcohol, an ester, a hydroxy or glycol ester, a polyol and a ketone.

84. (original) An anti-microbial composition according to Claim 1, wherein the polar solvent is selected from isopropanol, diethylene glycol and dipropylene glycol.

85. (original) An anti-microbial composition according to Claim 1, comprising from 1 to 70% by volume of the polar solvent.

86. (currently amended) An anti-microbial composition according to Claim 1, wherein the composition comprises 32% by volume of a mixture of ~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethylchloride and ~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethyl-N-

tetradecyl-chloride (2.33:1), 6.0% by volume of a mixture of benzyl-C₁₂-C₁₆-alkyldimethyl-ammoniumchloride and 2-phenyl phenol (2:1), 6.0% by volume 2-octyl-2H-isothiazol-3-one, 16.0% by volume of a mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1), 1.0% by volume a blend of polysiloxanes and 39% by volume isopropanol.

87. (currently amended) An anti-microbial composition according to Claim 1, wherein the composition comprises 32% by volume of a mixture of ~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethylchloride and ~~benzenethanaminium~~ benzenemethanaminium N-dodecyl-N,N-dimethyl-N-tetradecyl-chloride (2.33:1), 6.0% by volume of a mixture of benzyl-C₁₂-C₁₆-alkyldimethyl-ammoniumchloride and 2-phenyl phenol (2:1), 6.0% by volume 2-octyl-2H-isothiazol-3-one, 16.0% by volume of a mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1), 1.0% by volume of polydimethylhydroxysiloxane and 39% by volume isopropanol.

88. (original) A formulation comprising the anti-microbial composition according to Claim 1, and a functional material.

89. (original) A formulation according to Claim 88, wherein the functional compound is selected from plastics, fibres, coatings, films, laminates, adhesives, sealants, clays, china, ceramics, concrete, sand, paints, varnishes, lacquers, cleaning agents and settable or curable compositions such as fillers, grouts, mastics and putties.

90. (original) A formulation according to Claim 88, wherein the formulation comprises from 0.1 to 5.0% by weight of the anti-microbial composition.

91. (original) A formulation according to Claim 88, wherein the formulation comprises from 0.5 to 2.0% by weight of the anti-microbial composition.

92. (currently amended) A method of ~~using an anti-microbial composition according to Claim 1, to preventing~~ the formulation of colonies of microorganisms on a surface, ~~at which it is provided~~ method comprises applying the anti-microbial composition according to Claim 1 to the surface.

93. (currently amended) A method of ~~using an anti-microbial composition according to Claim 86, to preventing~~ the formulation of colonies of microorganisms on a surface, ~~at which it is provided~~ method comprises applying the anti-microbial composition according to Claim 86 to the surface.

94. (currently amended) A method of ~~using an anti-microbial composition according to Claim 87, to preventing~~ the formulation of colonies of microorganisms on a surface, ~~at which it is provided~~ method comprises applying the anti-microbial composition according to Claim 87 to the surface.

95. (currently amended) A method of ~~using a formulation according to Claim 88, to preventing~~ the formulation of colonies of microorganisms on a surface, ~~at which it is provided~~ method comprises applying the anti-microbial composition according to Claim 88 to the surface.

96. (currently amended) A method of ~~using a formulation according to Claim 89, to preventing~~ the formulation of colonies of microorganisms on a surface, ~~at which it is provided~~ method comprises applying the anti-microbial composition according to Claim 89 to the surface.

97. (currently amended) A method of ~~using a formulation according to Claim 90, to preventing~~ the formulation of colonies of microorganisms on a surface, ~~at which it is provided~~ method comprises applying the anti-microbial composition according to Claim 90 to the surface.

98. (currently amended) A method of ~~using a formulation according to Claim 91, to preventing~~ the formulation of colonies of microorganisms on a surface, ~~at which it is provided~~ method comprises applying the anti-microbial composition according to Claim 91 to the surface.

99. (original) A method of manufacturing an anti-microbial composition according to Claim 1, the method comprising the steps of (i) mixing the first compound and the first anti-microbial agent together, (ii) adding the second compound to the mixture of the first compound and the first anti-microbial agent, (iii) adding the polar solvent to the mixture of the first and second compounds and first anti-microbial agent and (iv) agitating the resulting mixture until a clear solution is formed.

100. (original) A method of manufacturing a formulation comprising the step of adding the anti-microbial composition of Claim 1 to a functional material .

101. (canceled).

102. (canceled).

103. (currently amended) An anti-microbial composition comprising (i) a first compound having a high surface tension of from 20 to 35 mN/m, (ii) a second compound having a low surface tension of from 8 to 14 mN/m and selected from the group consisting of ~~C₁₂ to C₂₀ surfactant or oils~~, silanes, polysiloxanes, ~~polyethylene glycols, sodium lauryl sulphates~~, soya lecithins, and polydimethylhydroxysiloxane, (iii) a first anti-microbial agent selected from-amphoteric compounds, iodophores, phenolic compounds, quaternary ammonium compounds, hypochlorites and nitrogen based heterocyclic compounds and (iv) a polar solvent, wherein the composition acts substantially to prevent the formation of microbial colonies.

104. (new) An anti-microbial composition according to Claim 1, wherein the second compound is a polysiloxane or a blend of polysiloxanes.